

BILL OF MATERIALS			
ITEM	DESCRIPTION	QTY	
		ROAD	ROAD/STBY
5	BOLT, T-HEAD M14x165	4	4
10	WASHER, SPACER M14x30 0Dx4 THK	4	4
15	NUT, LOCK M14	4	4
20	SCREW, CAP HXHD M12x45 FLANGE	6	6
25	BASE TY-WRAP	20	20
30	CLAMP	30	30
35	RIVET, BLIND	4	4
40	O-RING 1/4	2	2
45	O-RING 3/8	5	5
50	O-RING 5/8	3	3
55	O-RING 3/4	1	1
60	FITTING 1/4ORS-MB	1	1
65	TERMINAL, RING Ø8	1	1
70	TERMINAL, RING Ø6	1	1
75	HEAT SHRINK	4	4
80	FUSE HOLDER	1	1
85	TERMINAL, RING	2	2
90	FUSE 50A	1	1
95	FUSE 60A	1	1
100	RIVET, BLIND	2	2
105	SPLICE	1	1
110	TERMINAL	1	1
115	THERMOSTAT INJECTION	1	1
120	SPLICE	2	2
125	SCREW, MACH PNHD M5x35	-	4
130	GROMMET	-	1
135	RECEPTACLE ASSY 400 3Ph	-	1
140	RECEPTACLE ASSY 230 3Ph	-	1
145	PLUG, FEMALE 400 3Ph	-	1
150	PLUG, FEMALE 230 3Ph	-	1
155	BRACKET	-	1
160	CAP ORFS 5/8	1	-
165	DECAL	-	1
170	DECAL	-	1
175	DECAL, 400/3/50	-	1
180	DIAGRAM	-	1
185	DIAGRAM	1	-
190	DIAGRAM	-	1
195	INSTRUCTIONS	1	1
200	INSTALLATION KIT	1	1
205	DECAL	1	1
210	MANUAL, SERVICE	1	1
215	SKIN	1	1
220	CHECK VALVE 3/8	1	1
225	CAB COMMAND	1	1
230	OPERATOR'S MANUAL	1	1
235	INSTALLATION INSTRUCTIONS	1	1
245	SCREW M6x20	7	7
250	HOSE FLEXIBLE	10	10
255	HOSE	8	8
260	HOSE	6	6
265	FITTING HOSE - MOD 8-10	1	1
270	FITTING HOSE - MOD 10-12	1	1
275	FITTING HOSE 90 - MOD 8-10	1	1
280	FITTING HOSE 90 - MOD 10-12	1	1
285	FITTING HOSE 90 - MOD 4-6	2	2
290	ELBOW, 90 - MOD 12	3	3
295	FITTING HOSE	2	2
300	ELBOW, 90	1	1
305	FITTING PRESSURE VALVE	1	1
310	VALVE	1	1
315	CLAMP – MOD 6	6	6
320	CLAMP – MOD 10	6	6
325	CLAMP – MOD 12	4	4
330	ELBOW, 45 – MOD 6	1	1
335	ELBOW, 45 – MOD 10	1	1
340	DRAIN WATER HOSE	1	1
345	DRAIN WATER TEE (connector)	1	1
350	TIE-WRAP	-	1

FUSES / 3 phase				
Item	230/3/50Hz	400/3/50Hz	230/3/60Hz	400/3/60Hz
12 V				
Road supply fuse	50 A	50 A	50 A	50 A
Standby supply fuse	50 A	50 A	50 A	50 A
Main standby fuse FB	16 A	10 A	16 A	12 A
Transformer primary fuses	3.15 AT	3.15 AT	3.15 AT	3.15 AT
Main road fuse	60 A	60 A	60 A	60 A
24 V				
Road supply fuse	40 A	40 A	40 A	40 A
Standby supply fuse	40 A	40 A	40 A	40 A
Main standby fuse FB	16 A	10 A	16 A	12 A
Transformer primary fuses	4 AT	3.15 AT	4 AT	3.15 AT
Main road fuse	50 A	50 A	50 A	50 A

FUSES / 1 phase		
Item	230/1/50Hz	208/230/1/60Hz
12 V		
Road supply fuse	50 A	50 A
Standby supply fuse	50 A	50 A
Circuit breaker fuse CB	25 A	25 A
Transformer primary fuses	5 AT	5 AT
Main road fuse	60 A	60 A
24 V		
Road supply fuse	40 A	40 A
Standby supply fuse	40 A	40 A
Circuit breaker fuse CB	25 A	25 A
Transformer primary fuses	4 AT	4 AT
Main road fuse	50 A	50 A

MODEL	CPR setting	
	bar	psig
XARIOS 600 (Integra 50X)	2.6	38 ± 1
XARIOS 500-04 (Integra 40X)	2.3	33 ± 1

MODEL	Refrigerant charge R404 A	
	LB	KG
XARIOS 600 (Integra 50X)	7.1	3.2
XARIOS 500-04 (Integra 40X)	6.6	3

MODEL	Voltage	AMP
XARIOS 600 (Integra 50X)	400/3/50Hz	10.7
	230/3/60Hz	16.6
	230/1/50Hz	17.2
	208/230/1/60Hz	20.0
XARIOS 500-04 (Integra 40X)	400/3/50Hz	8.0
	230/3/60Hz	16.6
	230/1/50Hz	17.2
	208/230/1/60Hz	20.0



ADDITIONNAL OIL + 200ml FOR XARIOS 600 & +250ml FOR XARIOS 600 MT
WE RECOMMEND FILLING THE EXTRA OIL IN THE UNIT USING ONE OF THE
FOLLOWING 3 OPTIONS
1. INTO THE TOP OF HP HOSE, JUST BEFORE THE OIL SEPARATOR.
2. INTO THE OIL SEPARATOR.
3. INTO THE TOP OF THE OIL RETURN HOSE.
WHILE COMMISSIONING, PLEASE LET THE ENGINE RUNNING AT IDLE SPEED
LUBRICATE THE COMPRESSEUR
DURING 10 MINUTES TO ALLOW THE OIL TO WELL LUBRICATE THE COMPRESSEUR



WARNING

READ ALL NOTES PRIOR TO INSTALLATION

NOTES :

TIME ESTIMATED FOR INSTALLATION OF UNIT ALONE : 8 hours

1. TRUCK BODY

- 1.1. THE TRAILER STRUCTURE MUST BE EVALUATED BY THE TRAILER MANUFACTURER TO DETERMINE ITS ABILITY TO WITHSTAND THE LOADS IMPOSED BY THE UNIT OVER ITS SERVICE LIFE. CARRIER TRANSICOLD DOES NOT CONVEY ANY ENDORSEMENT OR WARRANTY FOR THE TRAILER'S STRUCTURAL INTEGRITY.
- 1.2. UNIT MOUNTING SURFACES OF THE TRAILER THAT CONTACT THE UNIT MOUNTING PADS MUST BE UNI-PLANAR TO WITHIN 3mm [0.12] TO PREVENT DISTORTION OF THE UNIT AND/OR TRAILER ;
- 1.3. ALL DIMENSIONS SHOWN ARE MILLIMETERS, WITH IMPERIAL CONVERSIONS IN [INCHES].

2. INSTALLATION

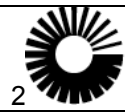
- 2.1. THIS REFRIGERATION UNIT HAS BEEN DESIGNED WITH THE SAFETY OF THE TECHNICIAN IN MIND. DURING NORMAL OPERATION, ALL MOVING PARTS ARE FULLY ENCLOSED TO PREVENT INJURY. DURING ALL PRE-TRIP INSPECTIONS, DAILY INSPECTIONS AND PROBLEM TROUBLESHOOTING, YOU MAY BE EXPOSED TO MOVING PARTS. WE ADVISE YOU TO TAKE ALL REQUIRED PRECAUTIONS GENERAL AND TO WEAR ADEQUATE PERSONAL PROTECTIVE EQUIPMENT (SAFETY GLASSES, GLOVES, SAFETY SHOES) DURING INSTALLATION AND ALL REPAIRS AND MAINTENANCE SERVICES ON THE UNIT.
- 2.2. TAKE EVERY SAFETY MEASURE WHEN ACCESSING THE UNIT, USE STANDARDS LADDERS, WORKING PLATFORM WITH RAILING, SAFETY BELT, ; ; ;
- 2.3. UNITS ARE DELIVERED UNDER PRESSURE WITH NITROGEN. PLEASE BE SURE THAT THE CIRCUIT IS STILL UNDER PRESSURE (IT MEANS THAT THERE IS NO LEAK).

3. SERVICE

- 3.1. IT IS IMPORTANT FOR THE SAFETY AND UPKEEP OF THE REFRIGERATION UNIT THAT SERVICING IS PERIODICALLY PERFORMED ACCORDING TO THE FREQUENCY INDICATED BY THE MANUFACTURED (SEE SERVICE MANUAL) ; SERVICE OPERATIONS AND REPAIRS MUST BE CARRIED OUT BY APPROVED CARRIER SERVICE STATIONS ;
- 3.2. **[ETO ONLY]** GOLDEN COLD SERVICE CONTRACTS : THE PROOF OF OUR COMMITMENT TO YOUR PROFITABILITY WITH A CHOICE OF CONTACTS : FULL SERVICE / ROUTINE MAINTENANCE / EXTENDED WARRANTY.

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ELECTRICAL CONNECTION	8
VACCUM, CHARGE, TEST AND RECORDS	9
GENERAL INFORMATION	11



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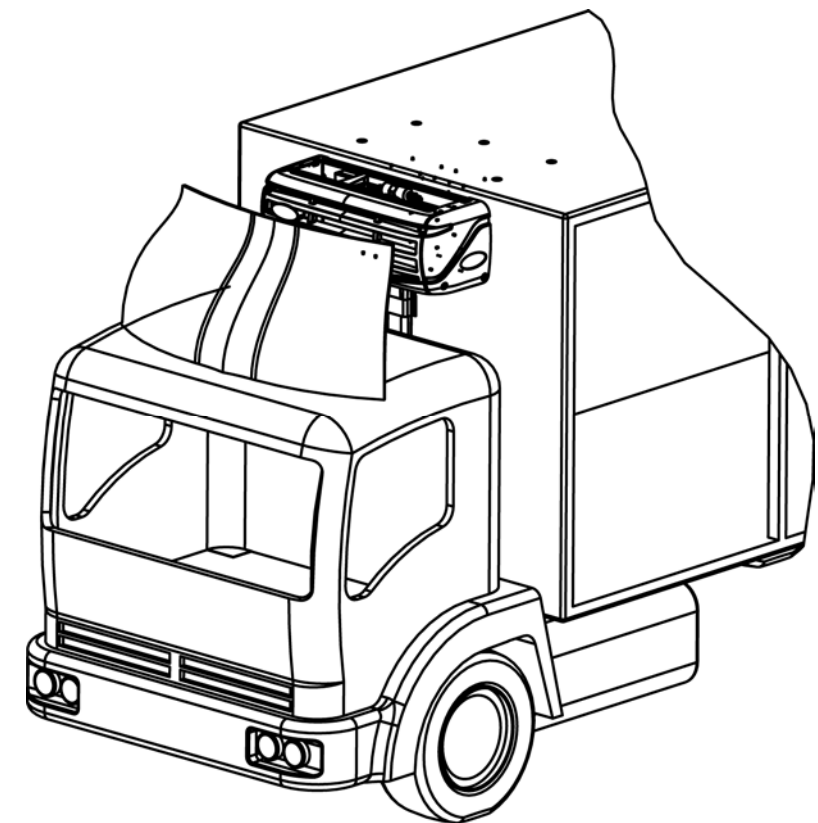
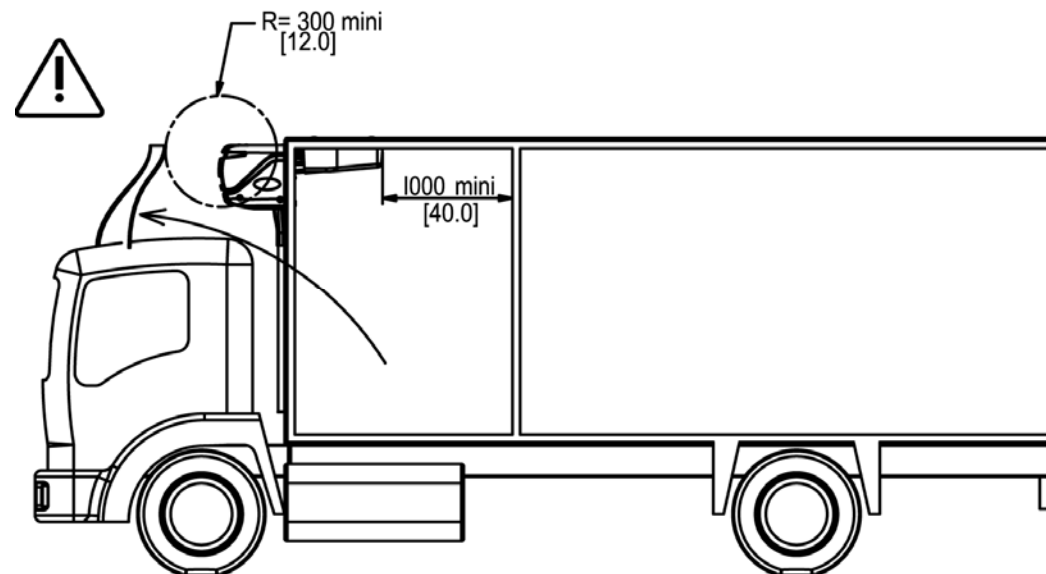
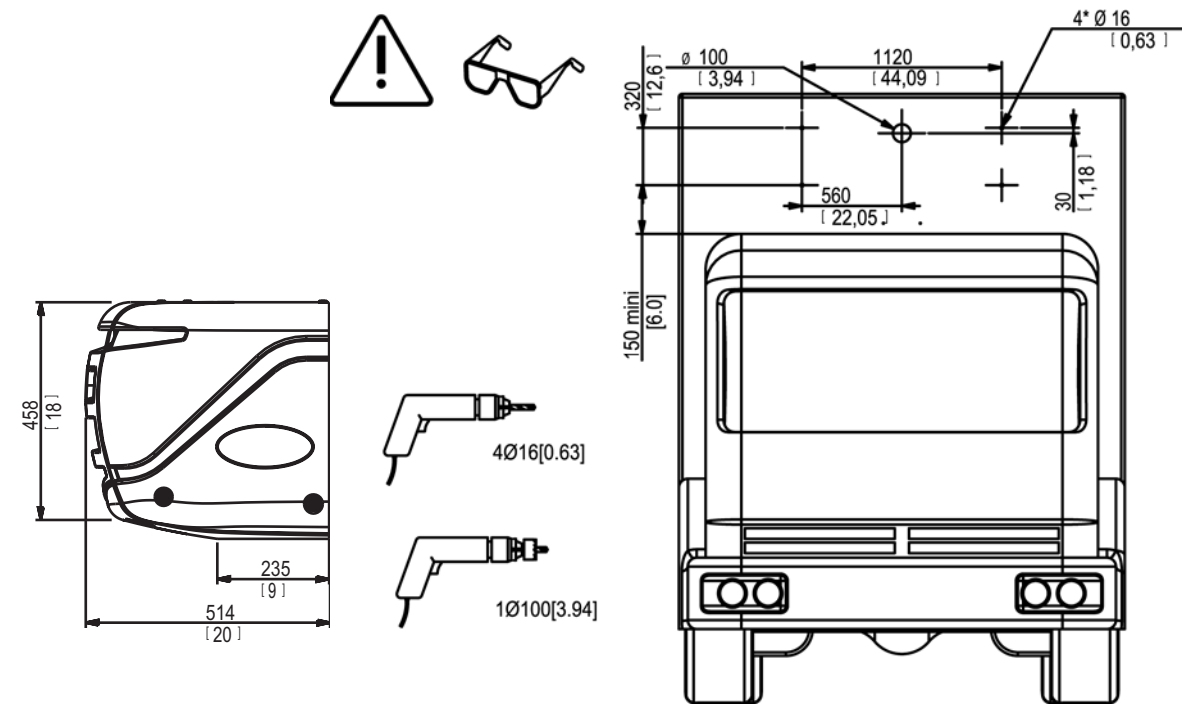
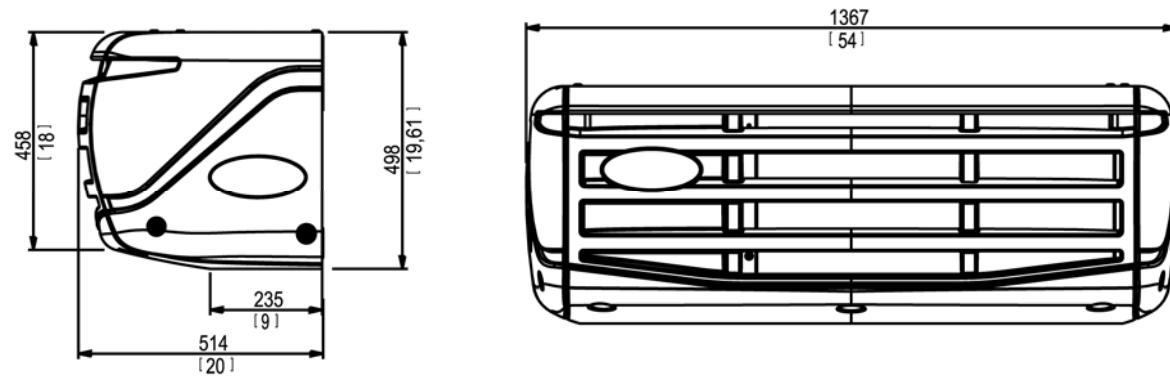
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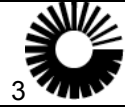
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CONDENSER XARIOS 500-04/600

WEIGHT :	X500-04 ROAD :	80 kg (177 lb)
	X500-04 ROAD/STANDBY :	144 kg (318 lb)
	X600 ROAD	83 kg (183 lb)
	X600 ROAD/STANDBY	147 kg (324 lb)





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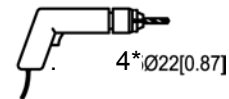
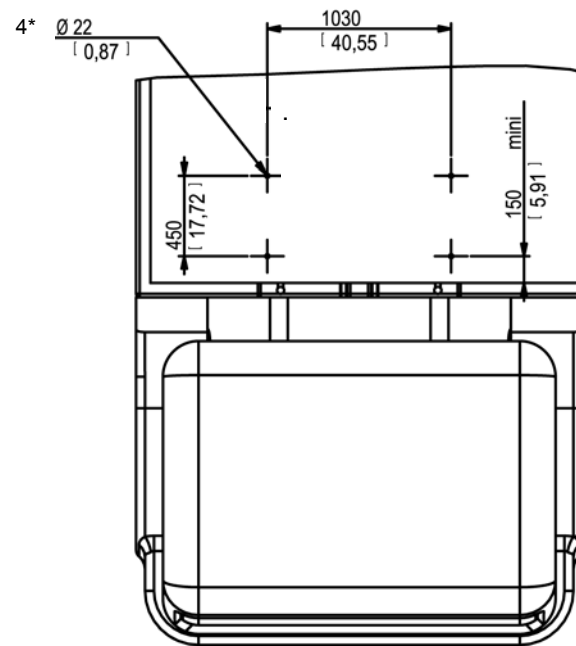
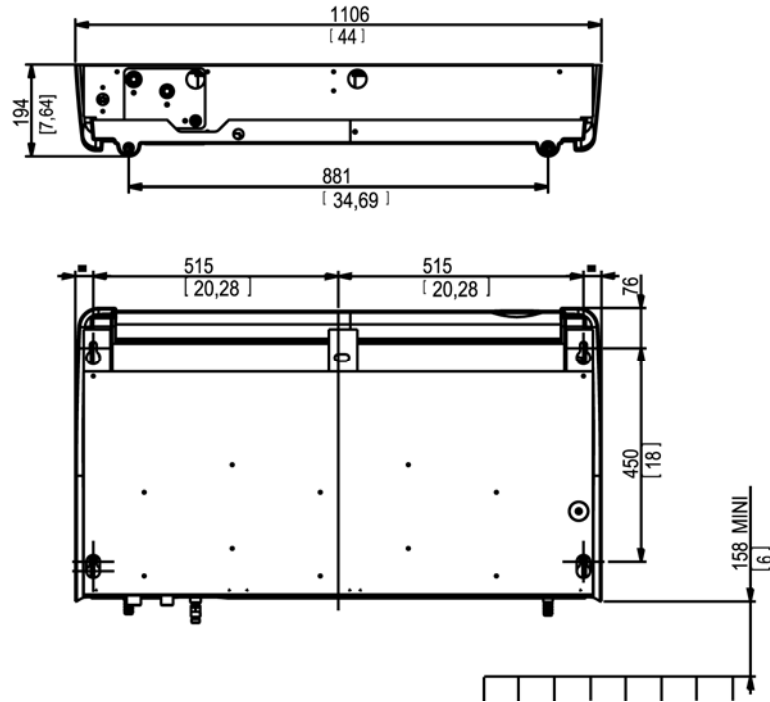
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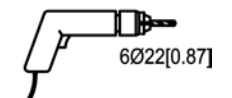
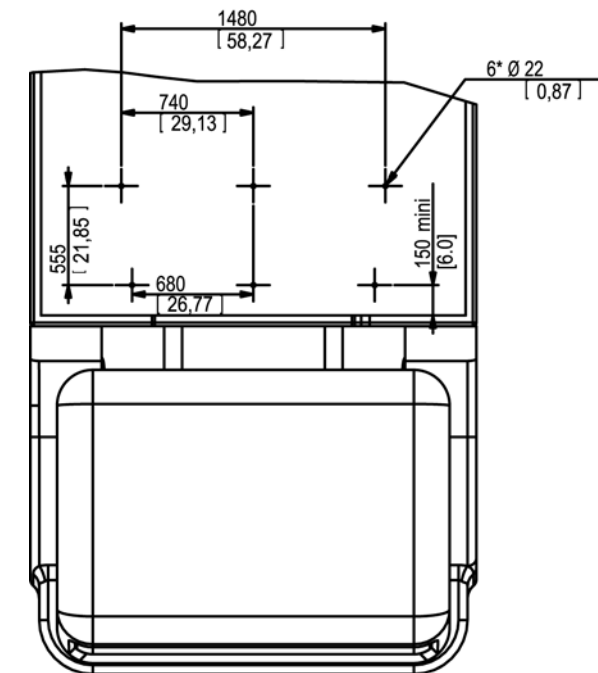
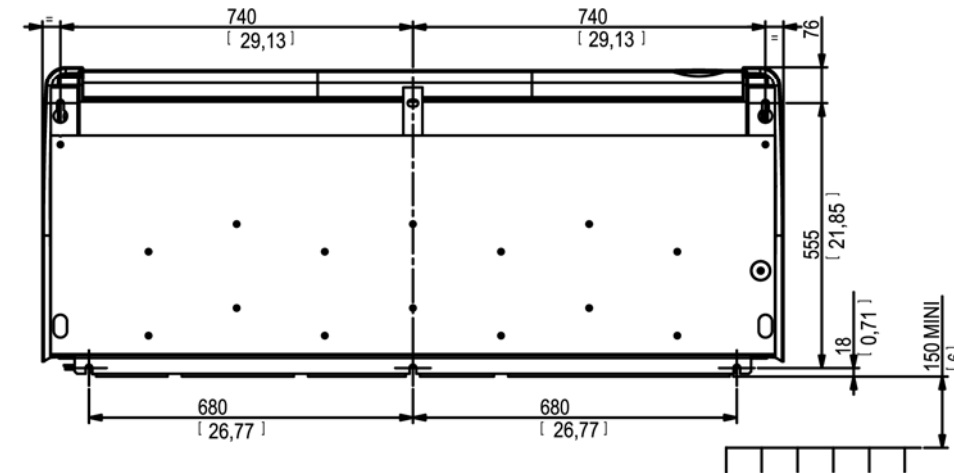
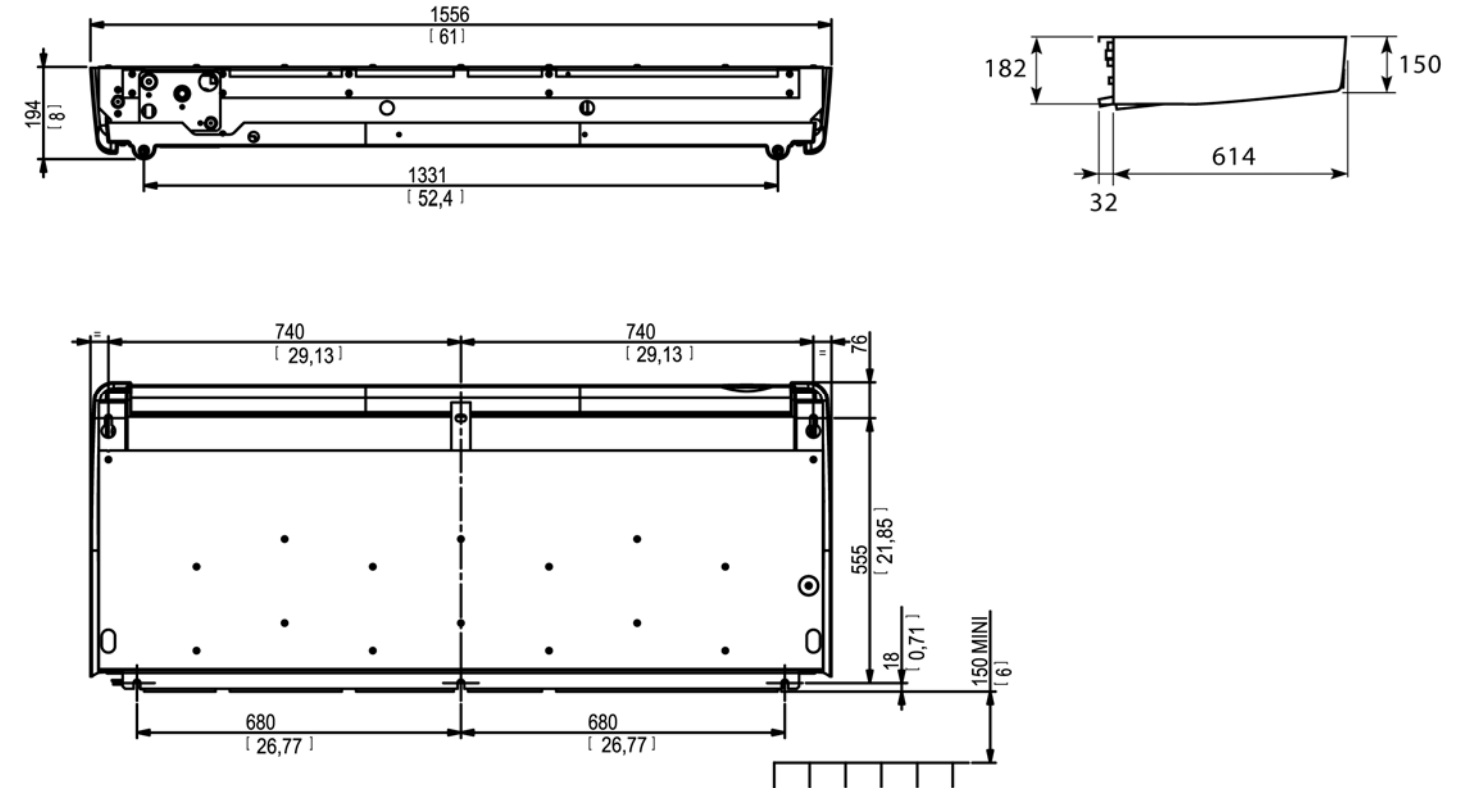
EVAPORATOR MXL 1100 - XARIOS 500-04

WEIGHT : 28 kg (62 lb)

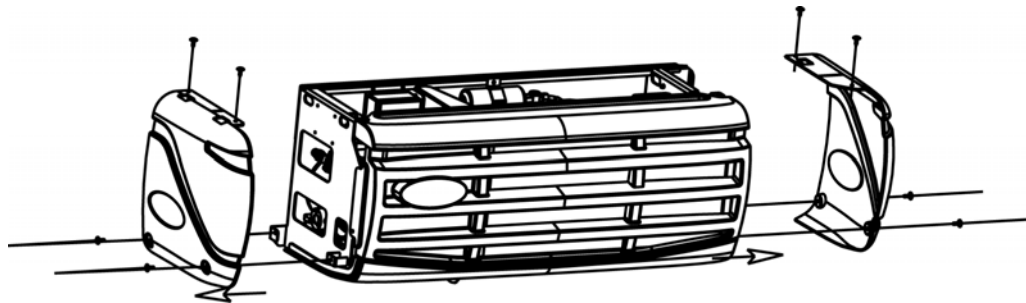


EVAPORATOR MXL 1550 - XARIOS 600

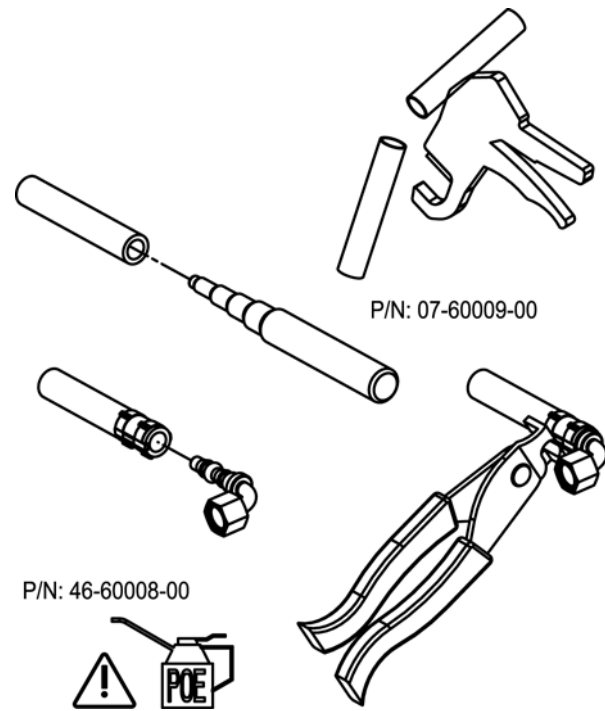
WEIGHT : 42 kg (93 lb)



1



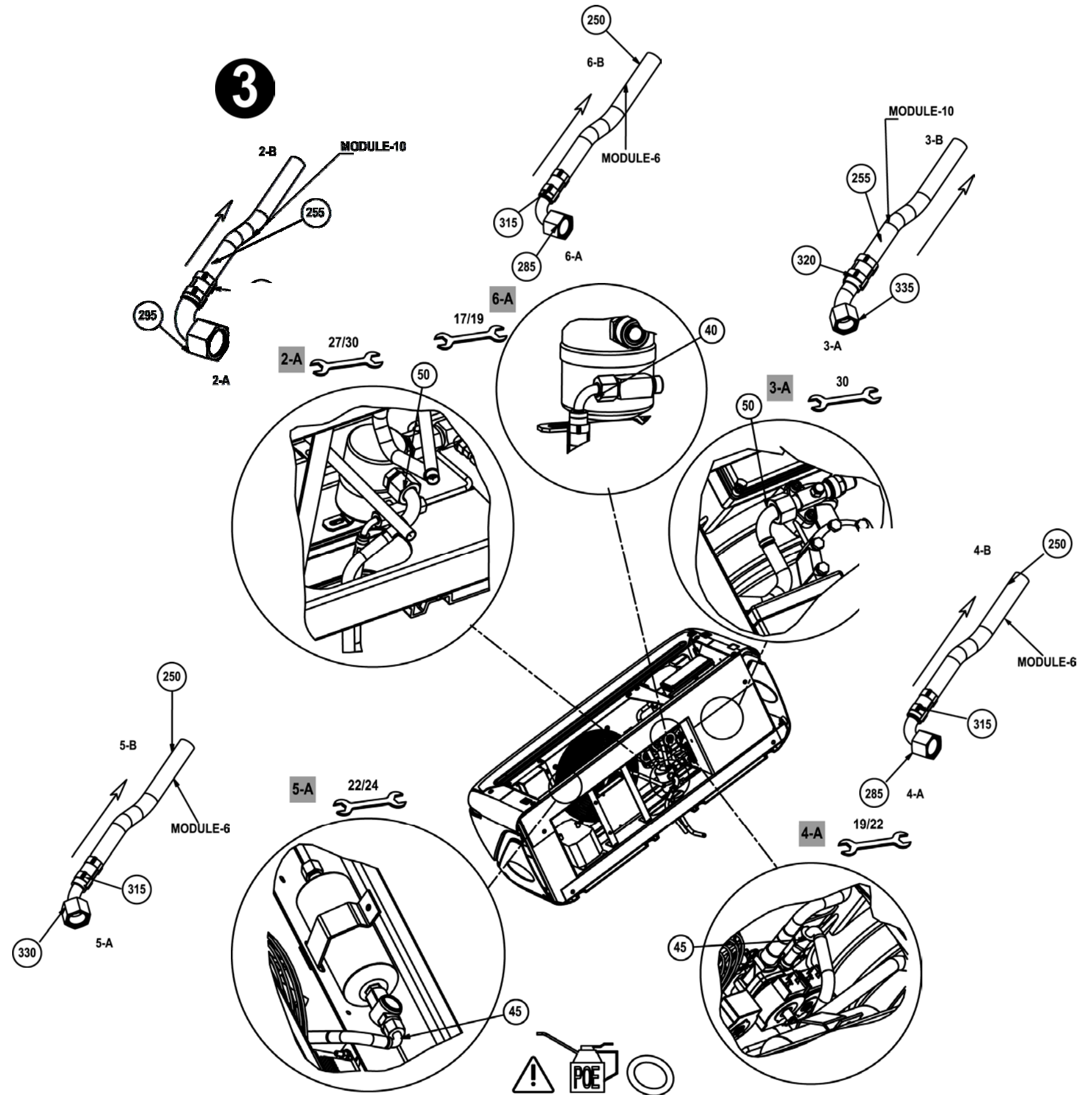
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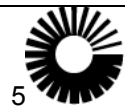


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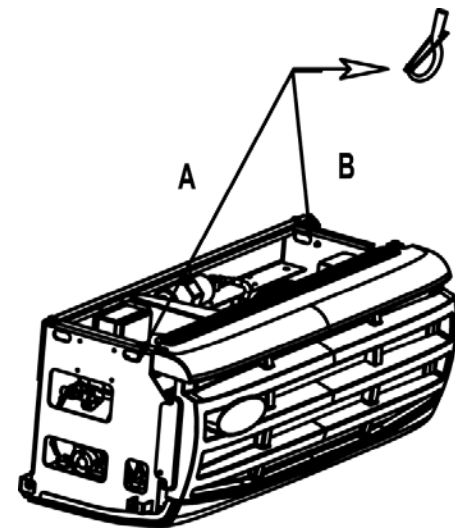
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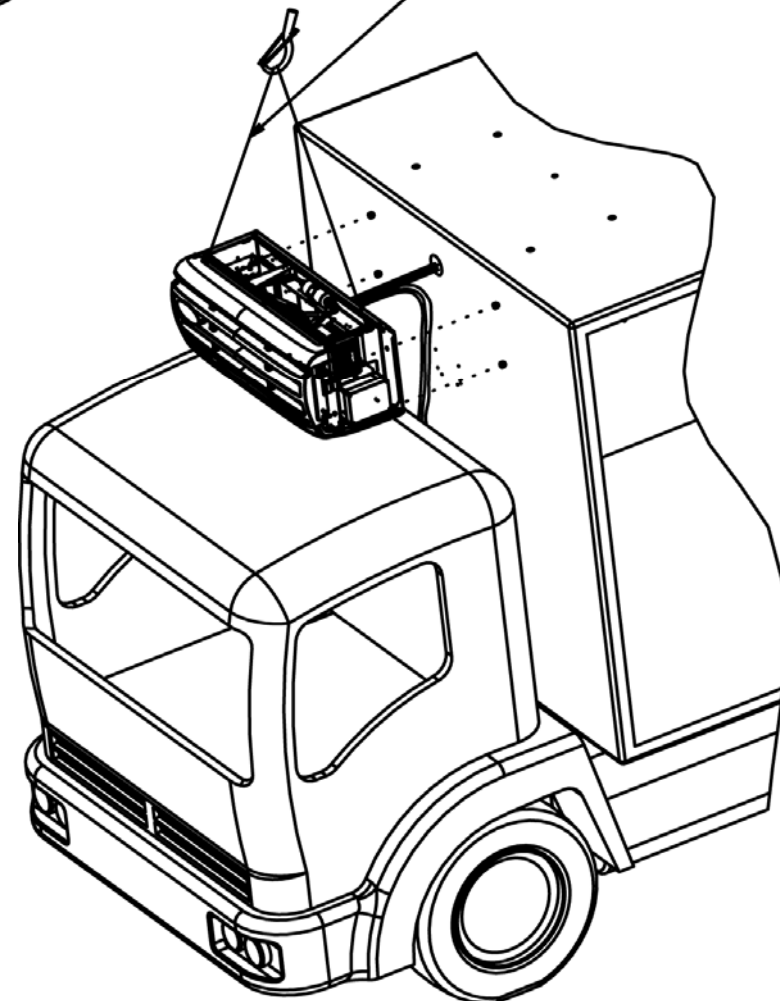
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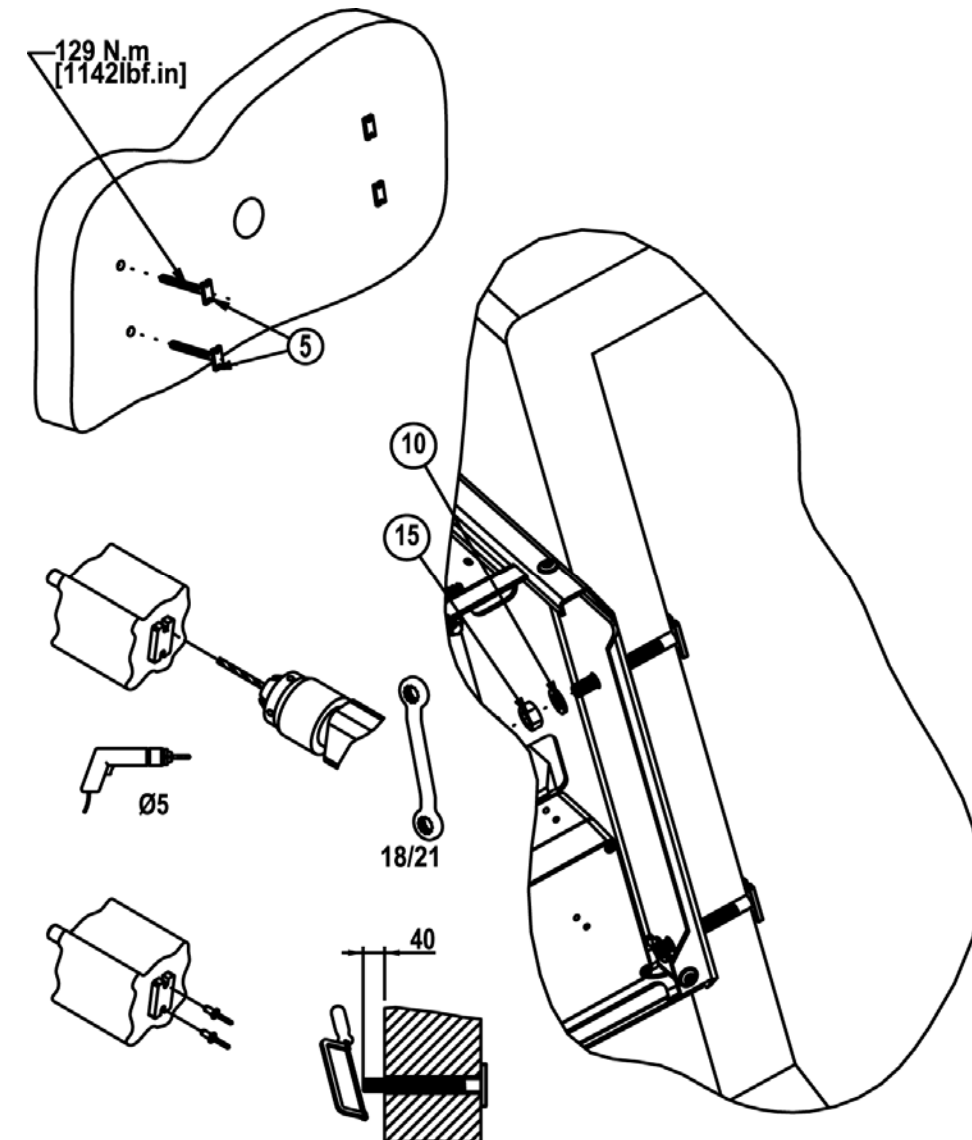


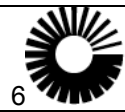
A (mm)	1040[41]	940[37]
B (mm)	940[37]	1040[41]

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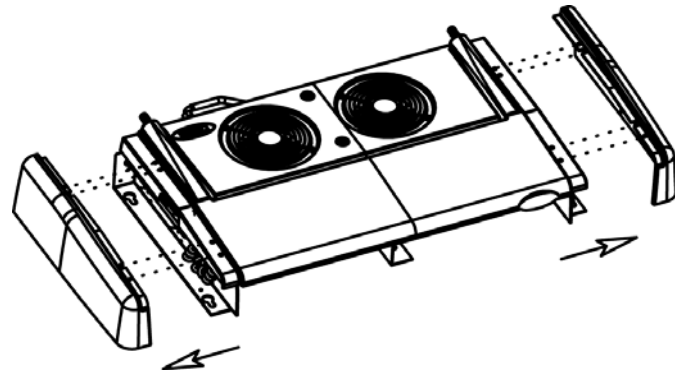
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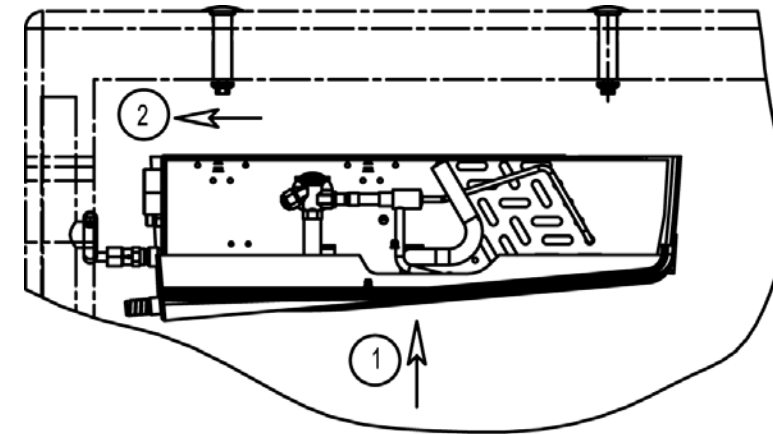
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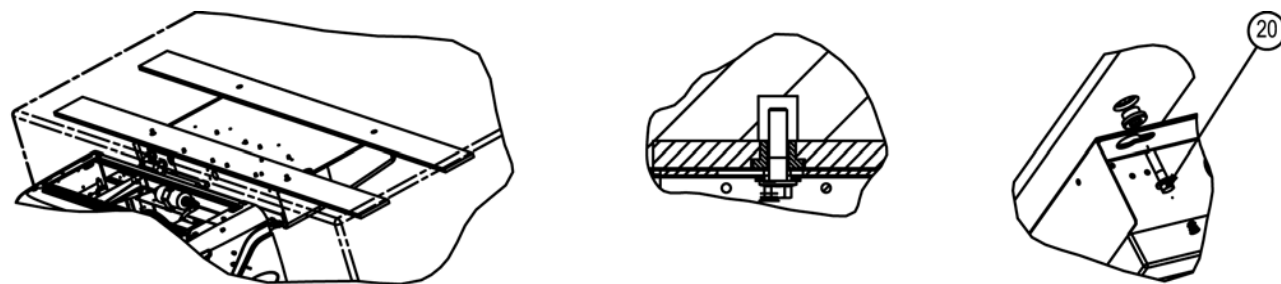
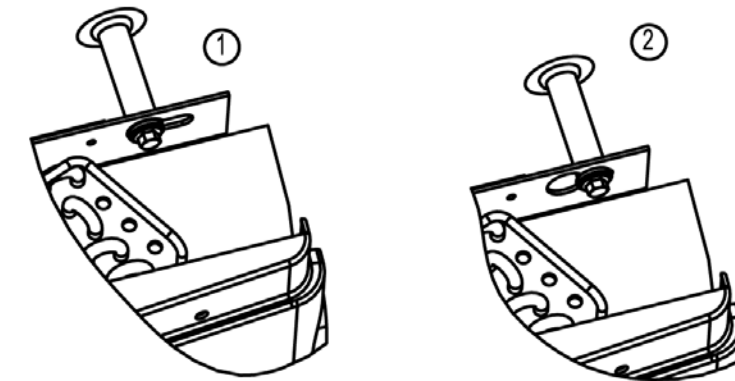
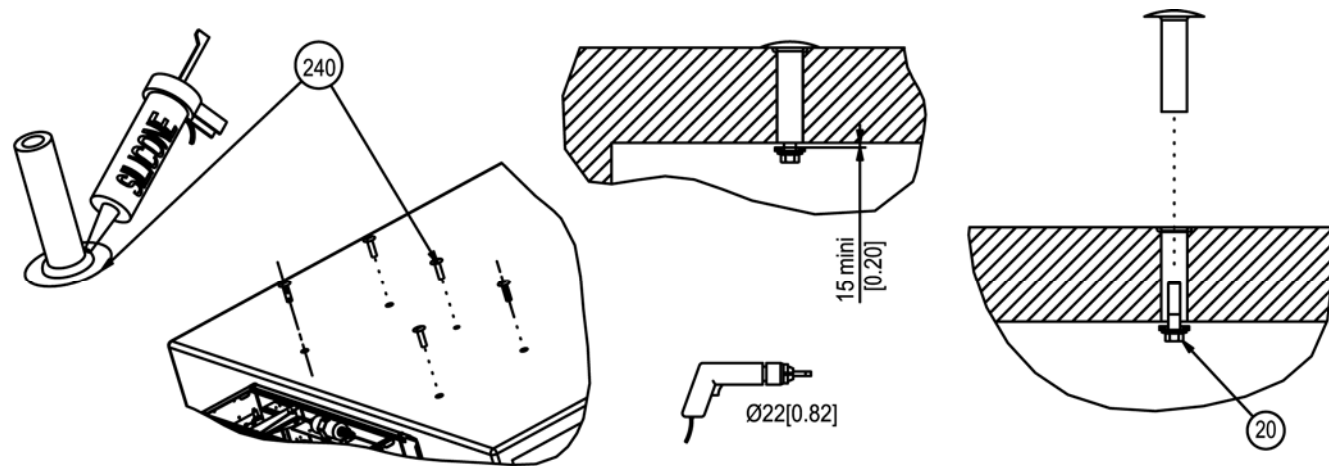
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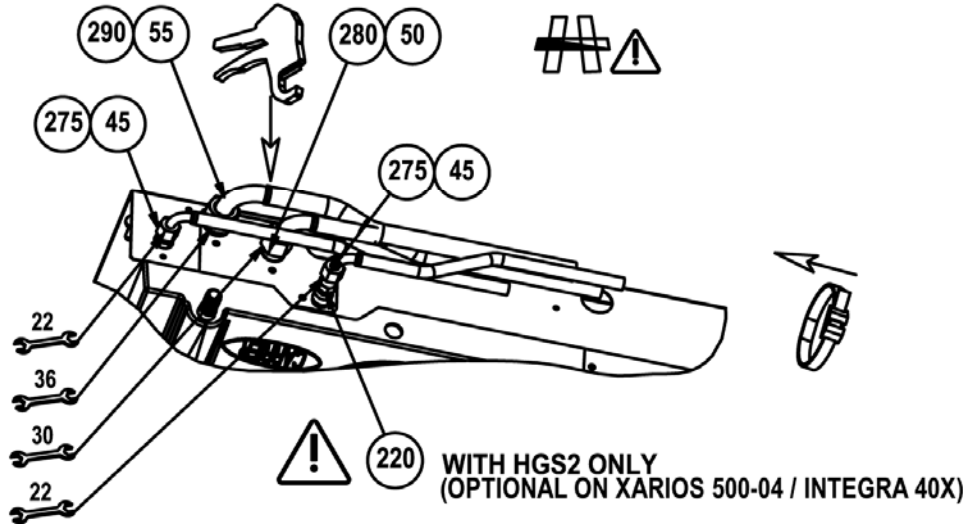
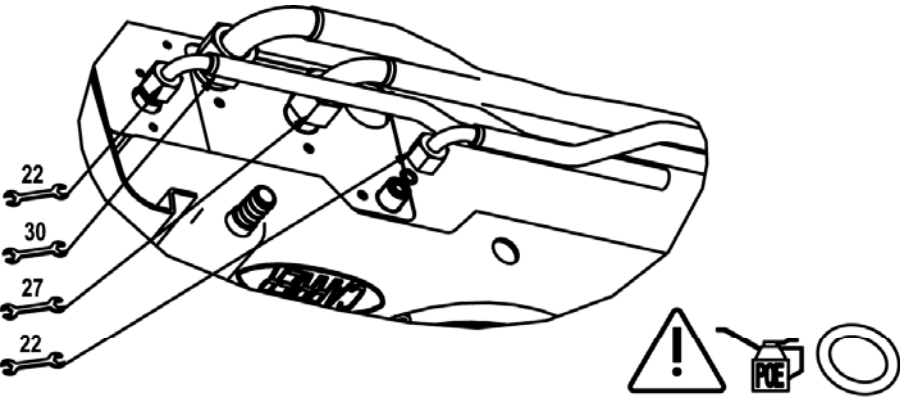
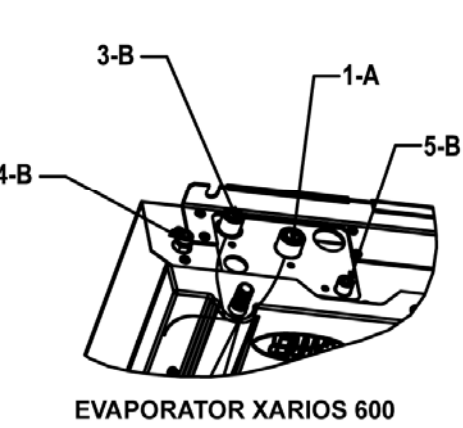
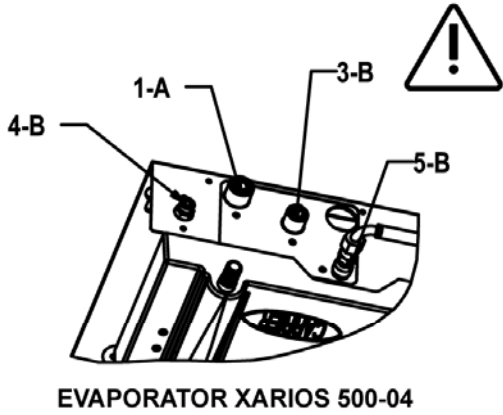
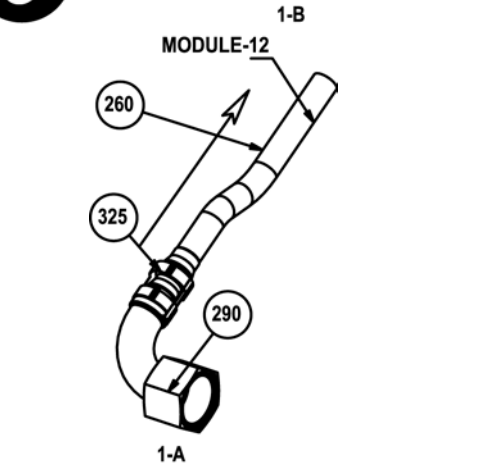
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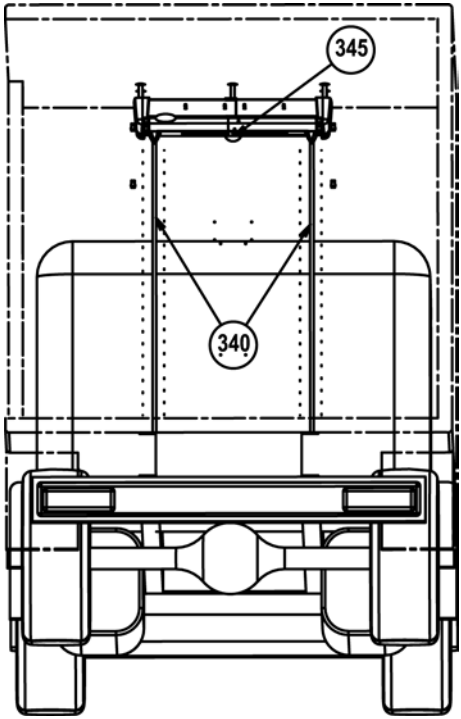
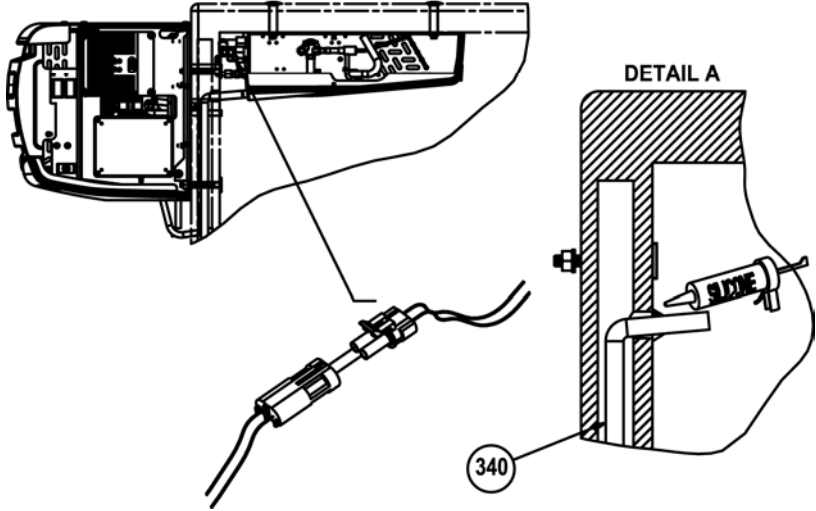
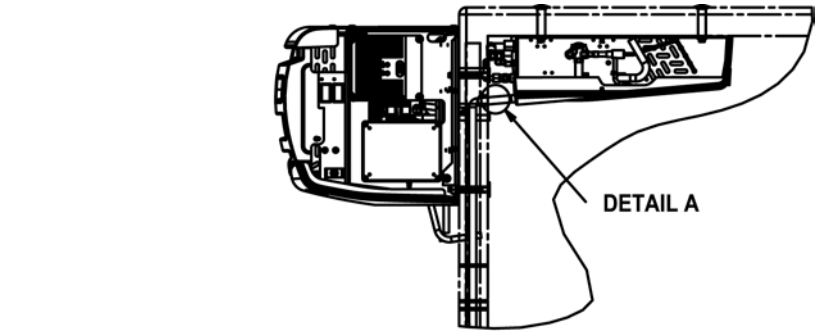
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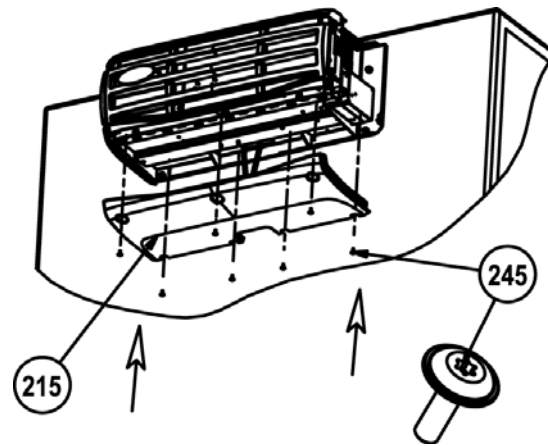
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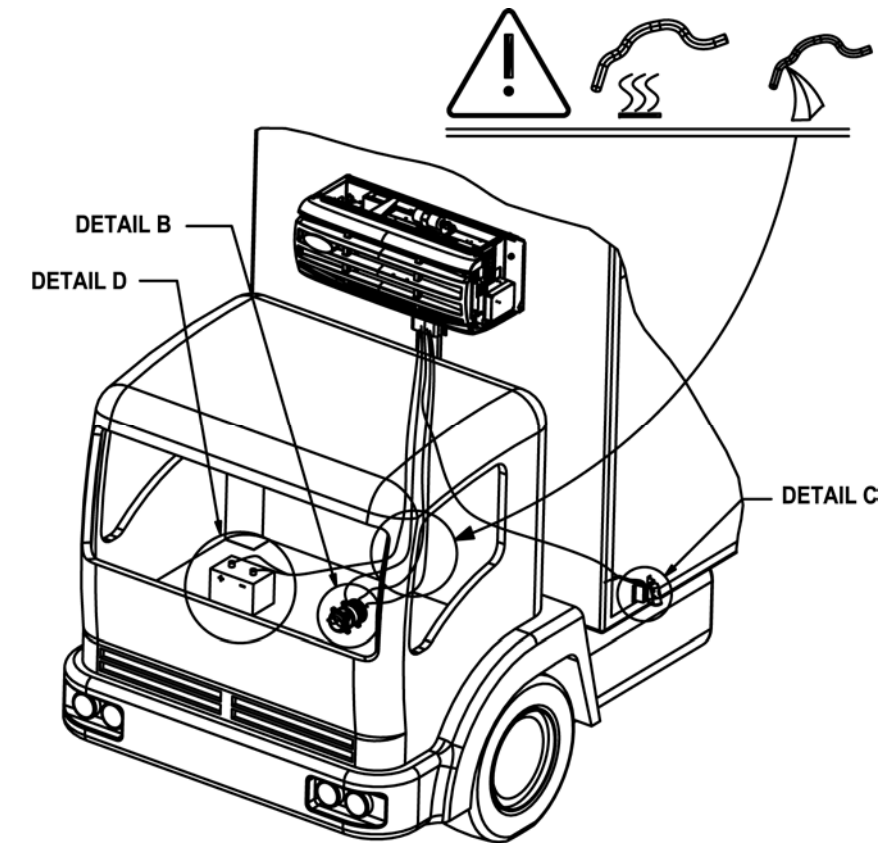
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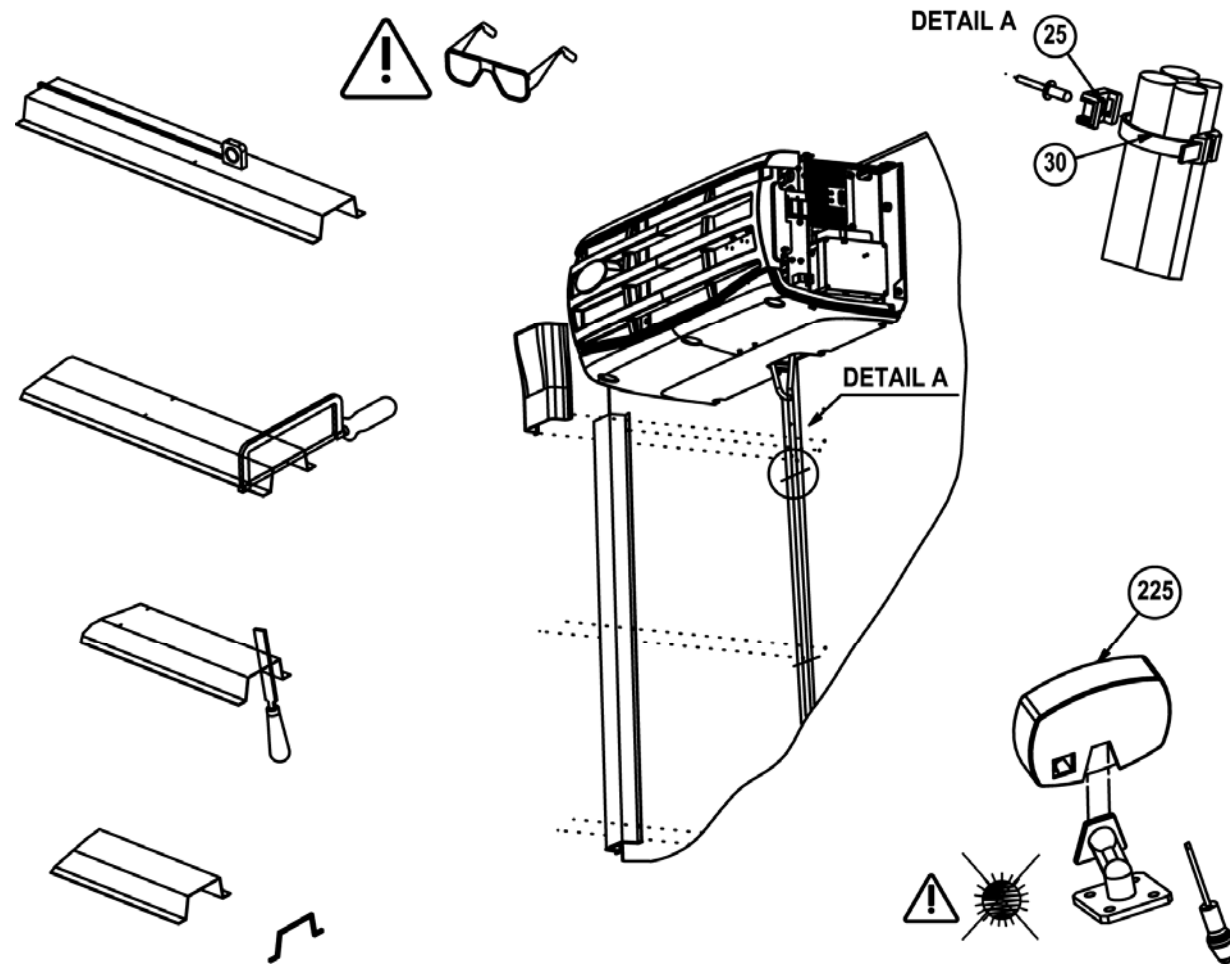
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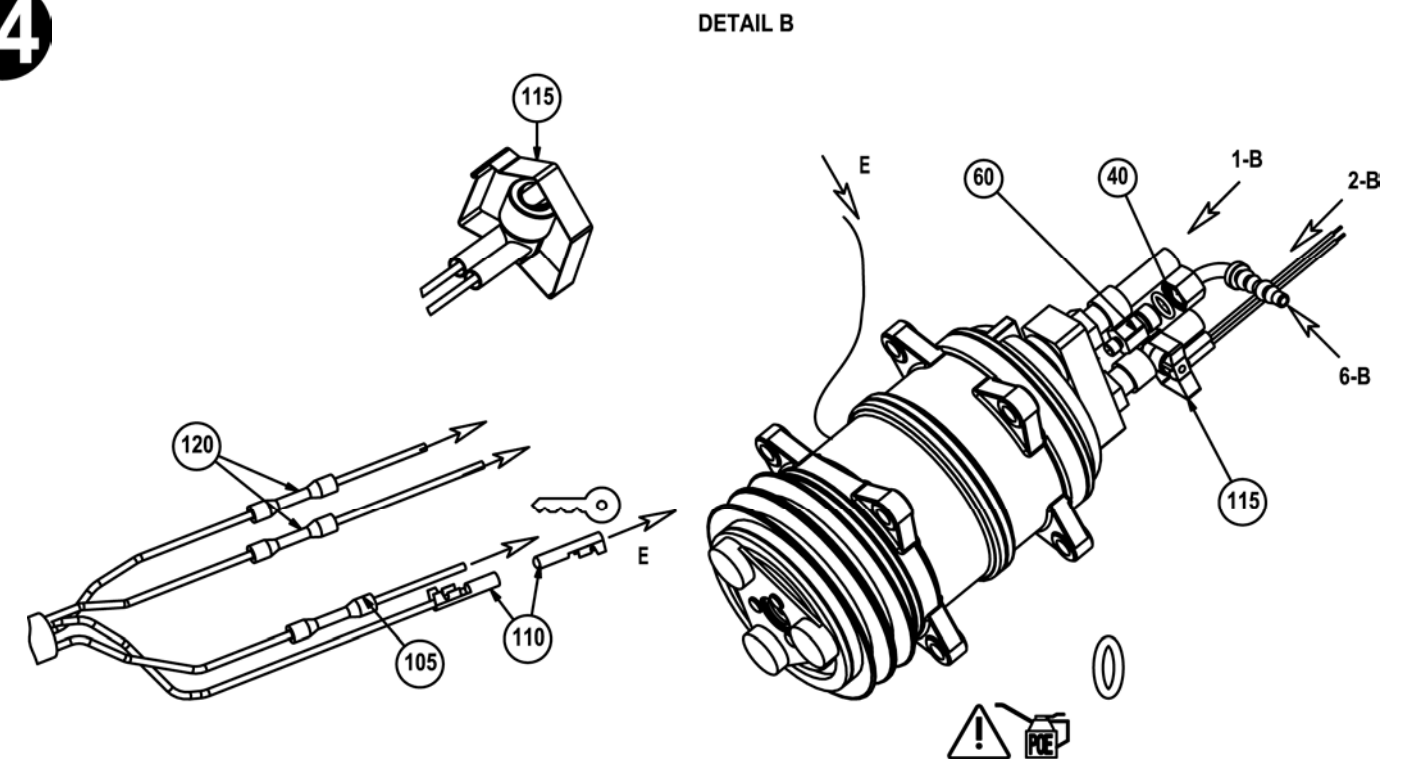
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14





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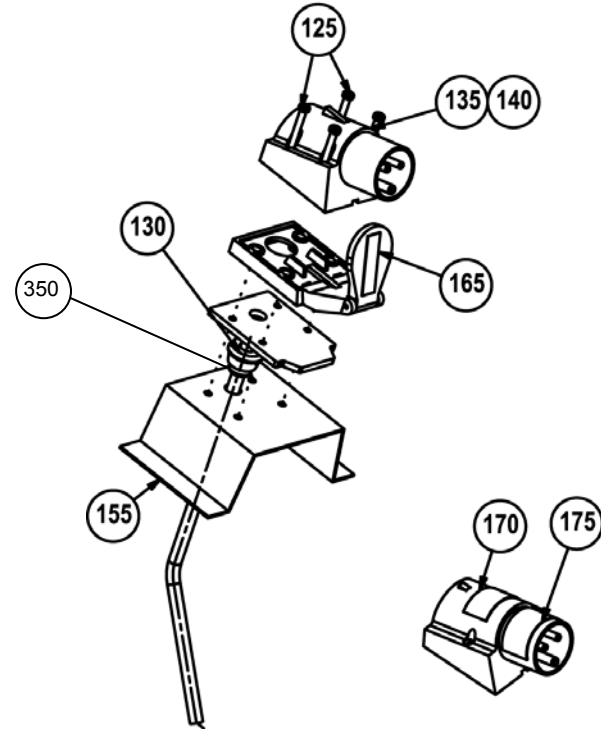
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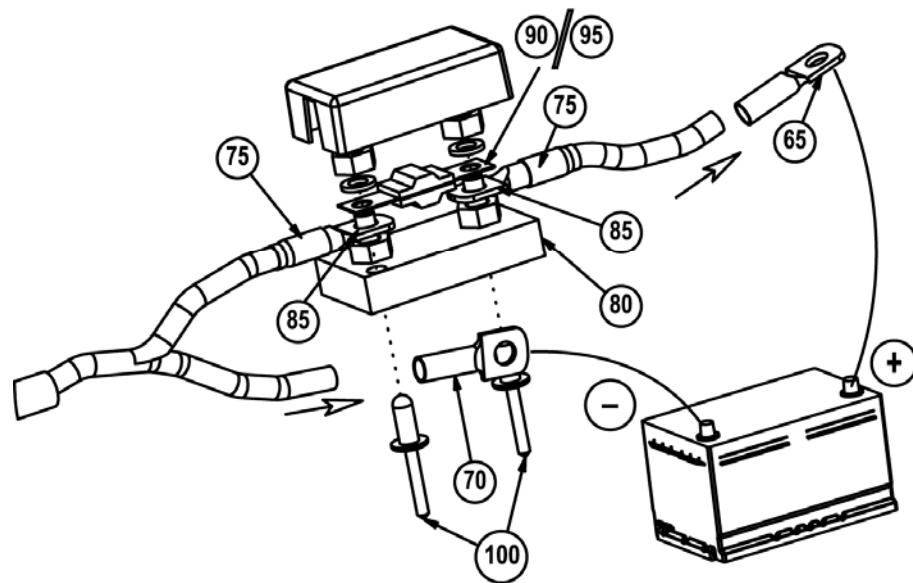
DETAIL C

135	140
400/3/50	230/3/60

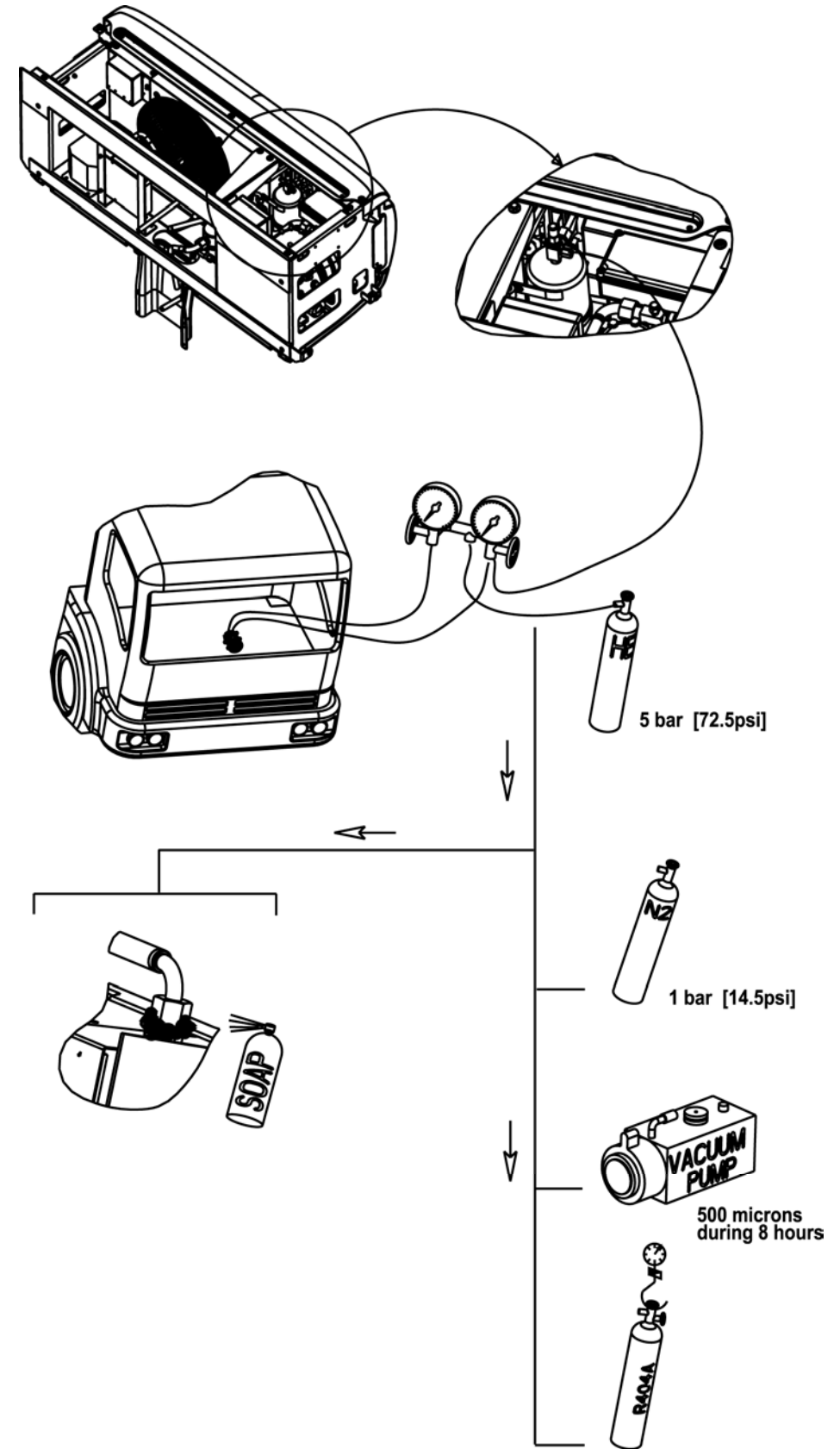


16

DETAIL D



17



XARIOS 500-04 / INTEGRA 40X :
3 Kg (6.6 lb)

XARIOS 600 / INTEGRA 50X :
3.2 Kg (7.1 lb)

XARIOS 500-04 & 600 INSTALLATION INSTRUCTIONS
(INTEGRA 40X/50X) P/N 98-60503-00 Rev.D



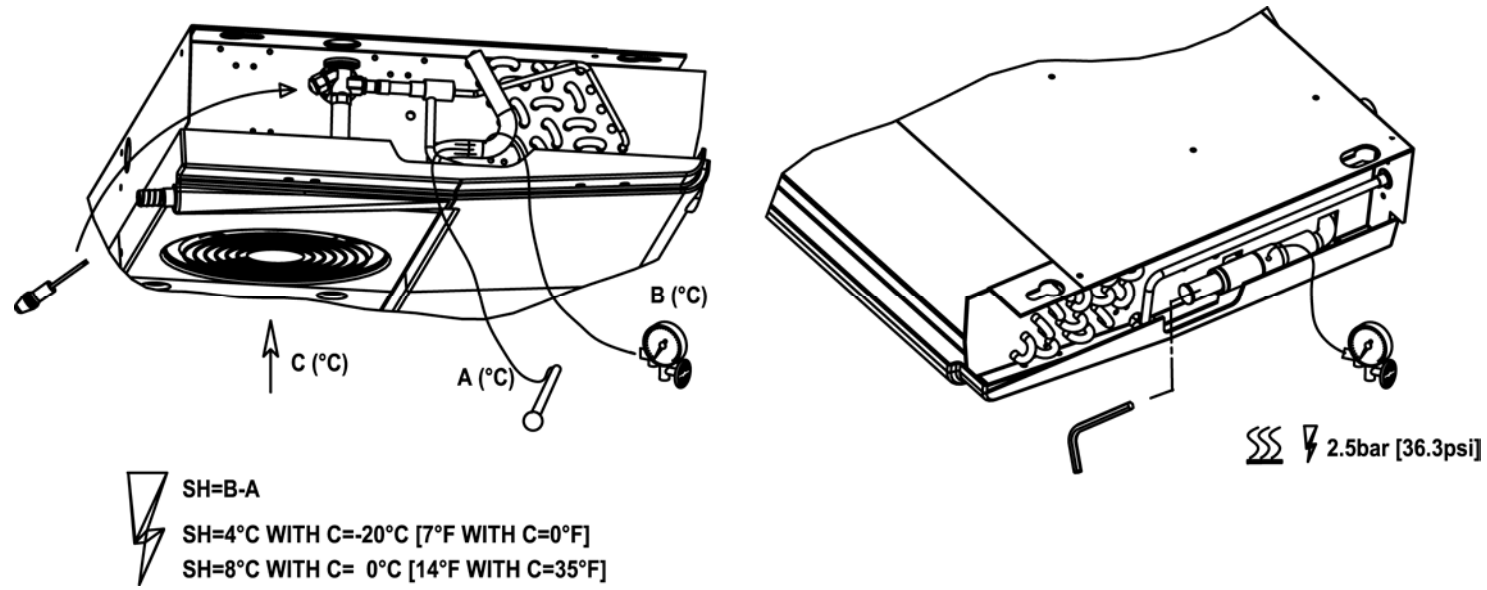
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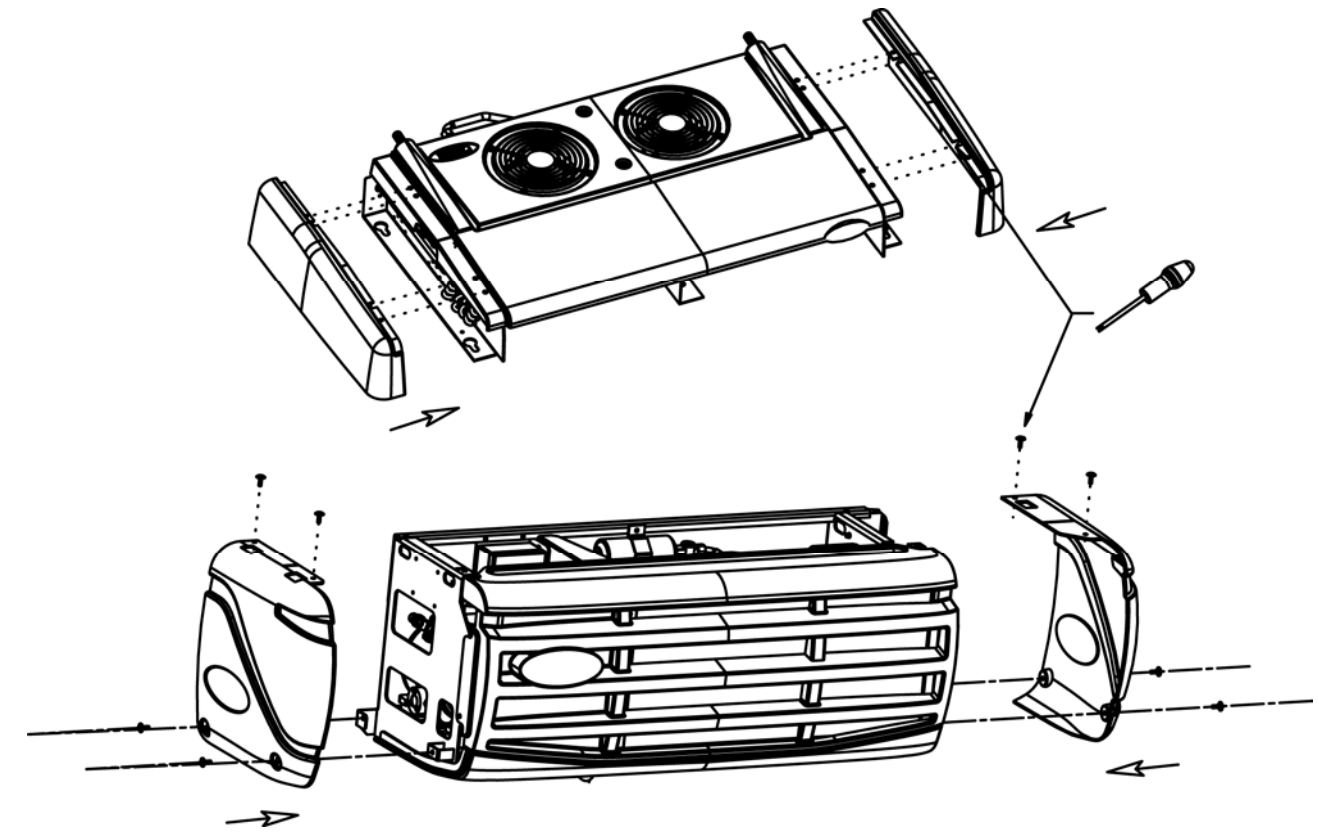
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19



➤ COMPRESSOR



Read carefully the following instructions, strict observance of these procedures are essential for operator safety.



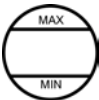
DO NOT SWITCH ON COMPRESSOR WITH TERMINAL BOX OPEN.
REMOVE TERMINAL BOX COVER ONLY WITH POWER SOURCE DISCONNECTED.
WIRING DIAGRAMS AND FURTHER INSTRUCTIONS INSIDE THE TERMINAL BOX.



BEFORE COMPRESSOR INSTALLATION, SLOWLY OPEN THE PLUG ON THE DISCHARGE VALVE AND VENT THE NITROGEN HOLDING CHARGE.
ENSURE THAT SUCTION AND DISCHARGE VALVES ARE OPEN BEFORE STARTING THE COMPRESSOR.



DO NOT TOUCH THE COMPRESSOR SHORTLY AFTER STOPPING AS SURFACE TEMPERATURES WILL BE DANGEROUS.



CHECK THE LEVEL OF THE LUBRICANT, IT MUST BE WITHIN ¼ AND ¾ OF THE OIL SIGHTGLASS.



DO NOT OPERATE THE COMPRESSOR WITH HYDROCARBON GASES.

➤ WHEN INSTALLING

- WHEN HANDLING THE UNIT, USE SUITABLE LIFTING GEAR ATTACHED TO THE EYE-BOLTS PROVIDED FOR THAT PURPOSE ON THE UNIT ;
- NOTE : THE UNIT SHOULD NOT PROTRUDE OUT OF THE BODY.

➤ BATTERY

- NEVER LEAVE A UNIT MORE THAN A MONTH WITHOUT RUNNING ; IN CASE OF LONG STANDSTILL, CHARGE THE BATTERY INDEPENDENTLY ;
- BEFORE PERFORMING ANY WELDING ON THE CHASSIS, TAKE CARE TO DISCONNECT THE BATTERY FROM THE UNIT AND THE VEHICLE AS WELL AS FROM THE CHARGE ALTERNATOR AND ANY OTHER ELECTRONIC SYSTEM (MICROPROCESSOR).
- **NEVER TRY TO START THE VEHICLE WITH A BOOSTER BECAUSE THIS COULD DAMAGE THE ELECTRONIC COMPONENTS IN THE UNIT OR ON THE VEHICLE ;**

EXTRACT FROM MATERIAL SAFETY DATA BULLETIN

4.1 Polyolester oil (POE oil)

1. PRODUCT AND COMPANY IDENTIFICATION

CARRIER TRANSICOLD INDUSTRIES
810 route de Paris
76520 FRANQUEVILLE ST PIERRE
FRANCE

4. FIRST AID MEASURES

EYE CONTACT :
flush thoroughly with water. If irritation occurs, call a physician.
SKIN CONTACT :
wash contact areas with soap and water. High pressure accidental injection through the skin requires immediate medical attention for possible incision, irrigation and/or debridement.
INHALATION :
not expected to be a problem.
INGESTION :
not expected to be a problem. However, if greater than 1/2 liter (pint) ingested, seek medical attention.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA :
carbon dioxide, foam, dry chemical and water fog
SPECIAL FIRE FIGHTING PROCEDURES :
water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.
SPECIAL PROTECTIVE EQUIPMENT :
for fires in enclosed areas, fire fighters must use self-contained breathing apparatus.
UNUSUAL FIRE AND EXPLOSION HAZARDS :
none. Flash point C (F) : 232 (450) (ASTM D-92). Flammable limits - LEL : NA, UEL: NA.
NFPA HAZARD ID :
health : 0,
flammability : 1,
reactivity : 0
HAZARDOUS DECOMPOSITION PRODUCTS :
carbon monoxide

6. ACCIDENTAL RELEASE MEASURES

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED :
small spills can be absorbed with fire retardant treated sawdust, diatomaceous earth, etc. Contain and remove larger spills for salvage or disposal according to applicable regulation.
ENVIRONMENTAL PRECAUTIONS :
prevent spills from entering storm sewers or drains and contact with soil.
PERSONAL PRECAUTIONS :
see section 8.

7. HANDLING AND STORAGE

STORAGE :
do not store in open or unlabelled containers. Store away from strong oxidizing agents or combustible material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION :
no special requirements under ordinary conditions of use and with adequate ventilation.
RESPIRATORY PROTECTION :
no special requirements under ordinary conditions of use and with adequate ventilation.

EYE PROTECTION :

normal industrial eye protection practices should be employed.
SKIN PROTECTION :
no special equipment required. However, good personal hygiene practices should always be followed.

10. STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS :
carbon monoxide (in case of fire)

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL :
EVEN THOUGH THIS PRODUCT IS READILY BIODEGRADABLE, IT MUST NOT BE INDISCRIMINATELY DISCARDED INTO THE ENVIRONMENT.

This product is suitable for burning in an enclosed, controlled burner for fuel value and for recycling at an approved facility. In addition, it can be disposed of at an approved waste disposal facility. Land farming and processing through sewage treatment facilities may be available disposal options but necessary approvals must first be obtained from appropriate regulatory authorities. Specific characteristics of the waste at the time of disposal may affect the availability of the above options.

The complete data sheets are available in English and French from Carrier Transicold Industries on request.

4.2 forane R404a

1. PRODUCT AND COMPANY IDENTIFICATION

CARRIER TRANSICOLD INDUSTRIES
810 route de Paris
76520 FRANQUEVILLE ST PIERRE
FRANCE

Product name : Forane (R) 404A
Product synonym(s)
Chemical family : hydrofluorocarbons
Chemical formula : CF3CH2F/CF3CH2F/CF3CH3
Chemical name : 1,1,1,2-tetrafluoroethane (HFC-134a)/Pentafluoroethane (HFC-125)/1,1,1-trifluoroethane (HFC-143a).

2. COMPOSITION / INFORMATION ON INGREDIENTS

BLEND OF FORANE 125, 143a, 134a
This product is not hazardous to health as define by the European Union dangerous substances and preparations directives.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Colorless liquified gas with faint ether odor.

WARNING

LIQUID AND GAS UNDER PRESSURE, OVERHEATING AND OVERPRESSURIZING MAY CAUSE GAS RELEASE OF VIOLENT CYLINDER BURSTING. MAY DECOMPOSE ON CONTACT WITH FLAMES OR EXTREMELY HOT METAL SURFACES TO PRODUCE TOXIC AND CORROSIVE PRODUCTS. VAPOR REDUCES OXYGEN AVAILABLE FOR BREATHING AND IS HEAVIER THAN AIR. HARMFUL IF INHALED AND MAY CAUSE HEART IRREGULARITIES, UNCONSCIOUSNESS OR DEATH. LIQUID CONTACT WITH EYES OR SKIN MAY CAUSE FROSTBITE.

POTENTIAL HEALTH, EFFECTS

Skin contact and inhalation are expected to be the primary routes of occupational exposure to this material. As with most liquified gases, contact with the rapidly volatilizing liquid can cause frostbite to any tissue. High vapor concentrations are irritating to the eyes and respiratory tract and may result in central nervous system (CNS) effects such as headache, dizziness, drowsiness and, in severe exposure, loss of consciousness and death. The dense vapor of this material may reduce the available oxygen for breathing. Prolonged exposure to an oxygen-deficient atmosphere may be fatal. Inhalation may cause an increase in the sensitivity of the heart to adrenaline, which could result in irregular or rapid heartbeats. Medical conditions aggravated by exposure to this material include heart disease or compromised heart function.

4. FIRST AID MEASURES

EYE CONTACT

immediatly flush with plenty of water. Get medical attention if irritation persists.
SKIN CONTACT
flush exposed skin with lukewarm water (not hot), or use other means to warm skin slowly. Get medical attention if frostbitten by liquid or if irritation occurs.

INGESTION
not applicable. Product is a gas at ambient temperatures.
INHALATION
remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. DO NOT GIVE ADRENALINE, EPINEPHRIN OR SIMILAR DRUGS FOLLOWING EXPOSURE TO THIS PRODUCT.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
use extinguishing media appropriate to surrounding fire conditions.
FIRE FIGHTING INSTRUCTIONS
stop the flow of gas if possible. Use water spray on person making shut-off and on containers and cylinders. Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus. Fire fighting equipment should be thoroughly decontaminated after use.
FIRE AND EXPLOSION HAZARDS
some mixtures of HCFCs and / or HFCs, and air or oxygen may be combustibile if pressurized and exposed to extreme heat or flame.

6.ACCIDENTAL RELEASE MEASURES

IN CASE OF SPILL OR LEAK
use Halogen leak detector or other suitable means to locate leaks or check atmosphere. Keep upwind. Evacuate enclosed spaces and disperse gas with floor-level forced-air ventilation. Exhaust vapors outdoors. Do not smoke or operate internal combustion engines. Remove flames and heating elements.

7. HANDLING AND STORAGE

HANDLING
avoid breathing gas. Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Do not enter confined spaces unless adequately ventilated.
STORAGE
do not apply direct flame to cylinder. Do not store cylinder in direct sun or expose it to heat above 48°C (120°F). Do not drop or refill this cylinder. Keep away from heat, sparks and flames.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EYE / FACE PROTECTION
where there is potential for eye contact, wear chemical goggles and have eye flushing equipment available.
SKIN PROTECTION
wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Rinse contaminated skin promptly. Wash contaminated clothing and clean protective equipment before reuse. Wash skin thoroughly after handling.
RESPIRATORY PROTECTION
avoid breathing gas. When airborne exposure limits are exceeded, use respiratory protection equipment appropriate to the material and / or its components (full facepiece recommended). For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply.

10. STABILITY AND REACTIVITY

INCOMPATIBILITY
avoid contact with strong alkali or alkaline earth metals, finely powdered metals such as aluminium, magnesium or zinc and strong oxidizers, since they may react or accelerate decomposition.
HAZARDOUS DECOMPOSITION PRODUCTS
thermal decomposition products include hydrogen fluoride, hydrogen chloride, carbon monoxide, carbon dioxide and chlorine.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL
recover, reclaim or recycle when practical. Dispose of in accordance with federal, state and local regulations.

Note : chemical additions to, processing of, or otherwise altering this material may take this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

The complete data sheets are available in English and French from Carrier Transicold Industries on request.

